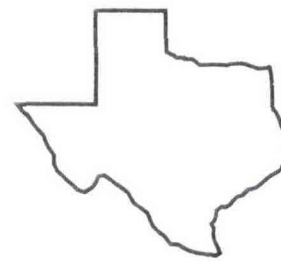
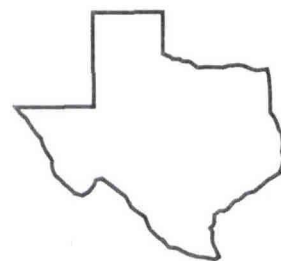
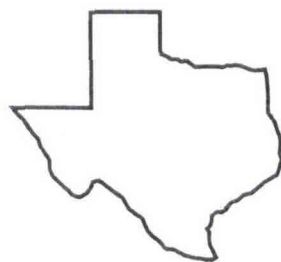
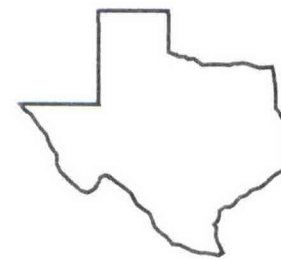


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RYEGRASS FORAGE YIELDS AT OVERTON FOR 1992-93 AND FOUR-YEAR MEANS

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Background. Annual ryegrass is an important forage crop in East Texas. Varieties vary in total forage yield and distribution, and for disease resistance. This study is conducted each year at the TAMU Agricultural Research and Extension Center at Overton to compare varieties for East Texas soils and climatic conditions.

Research Findings. All available ryegrass varieties and some experimental lines were evaluated during the past 4 years. Fertilizer rates are noted on table 1. Tests were planted into a prepared seedbed at 1/4 inch depth at 30 lb/ac. Planting dates were mid-September normally, and on September 22 in 1992. Plot size was 4 x 12 ft, with four replications. During the 1992-93 season, plots were harvested with a Hege plot harvester at a cutting height of 2 inches at six harvest dates. Ryegrass was approximately 6 inches tall at first harvest on December 8. Entries demonstrating best seedling vigor and rapid fall growth were, Gulf, Marshall, Jackson, and experimental WVPB-AR-90-1 (Table 1). The second harvest was January 25, indicating a warm winter and good ryegrass growth during this period. Better forage yields in the 2nd harvest were produced by TAM 90, Gulf, and FLA 80 which was closely followed by several experimentals. No winter freeze damage occurred during 1992-93. A major portion of the ryegrass forage was produced during late March, and April, when nearly all entries produced excellent yields. This is demonstrated in the April 13, and May 7 harvests. The high yield produced by Marshall on the last harvest (May 23) indicated that it has a later maturity than most other varieties. In many forage programs summer forages are available by late May and may provide ample forage by this date. Total season yield for 1992-93 and mean yields for the past 4 years are indicative of forage potential of these varieties. Differences in yield between varieties of less than the LSD (927 lbs for total yield) may be due to experimental error and should not be considered significant.

Application. The data presented from these trials should be useful in selecting ryegrass varieties best adapted to northeast Texas. Depending on variety availability, compare forage yields and seed prices to determine which variety you want to plant on your farm. Several varieties are available which will normally out yield Gulf by 1000 lbs dry matter forage per acre. Several year's data indicate that Marshall, TAM 90, Jackson, and Surrey have significantly improved winterhardiness compared to Gulf. Winterhardiness is extremely valuable in those years when winterkill occurs. The small additional seed cost of new varieties such as TAM 90, Marshall, Jackson and Surrey should be well worth their extra forage yielding potential.

Table 1. Ryegrass forage variety test at Overton, Texas for 1992-93 and four year averages.

Variety	Harvest Dates (month-day)						Total Yields	4 Year Mean
	12-8	1-25	3-18	4-13	5-7	5-23		
-----Dry Matter (lb/ac)-----								
Marshall	1210	1236	675	2000	1658	1354	8133	7949
Jackson	1052	1359	1093	2265	1115	856	7740	7530
TAM 90	637	2622	1142	1978	813	506	7698	7477
TXR90EN2*	46	1498	1128	2283	1012	749	7216	
Surrey	775	1227	1096	2111	1096	907	7212	7625
WVPB-AR-90-1*	1092	1366	683	1756	1559	747	7203	--**
TXR91-SR5EF*	161	1116	1771	2157	1087	908	7200	--
"600" tetraploid*	661	1473	1005	2051	1161	794	7145	--
TXR91-10EI*	306	1306	1172	2382	1011	922	7099	--
Rio	528	1246	1074	2042	1211	981	7084	7628
FLA. 80	699	1528	1230	1954	803	751	6965	6968
TXR86-2L91-12EI*	268	1221	1234	2215	1112	883	6933	--
TXR91-ENDO*	565	1199	1160	2101	1167	722	6914	--
NCSU-91	449	1070	694	2550	1233	902	6897	--
TAMU-86-2L*	404	1087	1164	2336	1136	770	6897	6924
Gulf	1267	1637	1099	1736	676	486	6895	6756
NF 149*	502	1416	922	1928	1052	982	6802	--
TXR91-9EF*	338	1460	1063	2237	871	747	6716	--
NF 429*	496	1380	971	1697	1240	926	6710	--
TXR91-A8EI*	245	1545	1224	2032	716	836	6598	--
TXR91-SR6EI*	262	1283	1057	2000	1168	666	6436	--
NF 4*	619	1116	974	1611	1215	781	6316	--
TXR91-A7EF*	111	1138	1396	1983	978	602	6208	--
NF 435*	389	1270	763	1794	1060	897	6171	--
TXR86-2L91-11EF*	126	920	1230	1902	1061	694	5933	--
TXR91-TA6EI*	171	988	789	1619	1259	1099	5923	--
WVPB-92-40(4N)*	310	1171	782	1521	1216	847	5847	--
TXR91-TA5EF*	359	468	798	1747	1064	876	5312	--
Mean	520	1298	1050	2000	1098	828	6793	
LSD (0.10)	293	444	272	404	248	268	927	

Planted September 22, 1992. Fertilization: Preplant 25 lb N, 100 lb P₂O₅ and 100 lbs of K₂O/ac. Topdressed with 48 lb N, 18 lb P₂O₅ and 36 lbs of K₂O/ac on December 8, 1992. This test was topdressed on March 9 with 61 lbs of N/ac and on April 26, 1993 with 50 lbs of N/ac.

* Experimental lines; seed not available

**Not tested for the past four years.